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FEE TRANSMITTAL For FY 2005

☐ Applicant claims small entity status. See 37 CFR 1.27

TOTAL AMOUNT OF PAYMENT (\$ 500.00)

Complete If Known

Application Number 10/770,352
Filing Date February 2, 2004
First Named Inventor Carl E. Whitcomb
Examiner Name Son T. Nguyen
Art Unit 3843
Attorney Docket No. WHIT-0002.A

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Application Type	FILING FEES		SEARCH FEES		EXAMINATION FEES		Fees Paid (\$)
	Fee (\$)	Small Entity Fee (\$)	Fee (\$)	Small Entity Fee (\$)	Fee (\$)	Small Entity Fee (\$)	
Utility	300	150	500	250	200	100	
Design	200	100	100	50	130	65	
Plant	200	100	300	150	160	80	
Reissue	300	150	500	250	600	300	
Provisional	200	100	0	0	0	0	

2. EXCESS CLAIM FEES

Fee Description	Fee (\$)	Small Entity Fee (\$)
Each claim over 20 or, for Reissues, each claim over 20 and more than in the original patent	50	25
Each independent claim over 3 or, for Reissues, each independent claim more than in the original patent	200	100
Multiple dependent claims	360	180

Total Claims Extra Claims Fee (\$)- 20 or HP = x =
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- 1) Transmittal Form;
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TRANSMITTAL FORM (to be used for all correspondence after initial filing)	Application Number	10/770,352
	Filing Date	February 2, 2004
	First Named Inventor	Carl E. Whitcomb
	Art Unit	3643
	Examiner Name	Son T. Nguyen
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APPEAL BRIEF

Appellant timely filed a Notice of Appeal to this Board on December 15, 2005 appealing the decision of the Examiner in the Final Office Action dated July 26, 2005 for the above captioned application. Appellant hereby submits this Appeal Brief pursuant to 37 C.F.R. 41.37.

(1) REAL PARTY IN INTEREST

The real party of interest in this action is Lacebark, Inc., the recorded assignee of the entire right, title and interest in and to the patent application now under appeal before this Board. Lacebark, Inc. is a corporation of the State of Oklahoma, having a place of business at Stillwater, Oklahoma 74705.

(2) RELATED APPEALS AND INTERFERENCES

The presently appealed application is a continuation-in-part of pending U.S. Application No. 10/075,096, filed on October 29, 2001. Appellant appealed a final rejection of the claims in 10/075,096 and a Decision on Appeal was issued on February 9, 2006. There are no other appeals or interferences known to Appellants, Appellants' legal representative, or Assignee that will affect or be directly affected by or have a bearing upon the Board's decision in the pending appeal.

(3) STATUS OF THE CLAIMS

The status of all claims in the application under appeal is as follows: claims 1-62 are pending in the application. Claims 41-45 and 51-62 have been withdrawn. Claims 1-40 and 46-50 stand rejected and are under appeal.

(4) STATUS OF AMENDMENTS

Appellant has not submitted any amendments to the claims since the Final Office Action dated July 26, 2005.

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(5) SUMMARY OF CLAIMED SUBJECT MATTER

There are two independent claims involved in this appeal, including independent apparatus claims 1 and 46.

Independent claim 1 is directed to a sidewall for a plant container and a plant container incorporating the sidewall. The sidewall comprises a first region that is nonporous or water-impermeable and a second region that is porous or water-permeable. Preferably, the first region of the sidewall comprises a nonporous root-tip-trapping region, such as the bilayer material described above, and the second region comprises a porous air-root-pruning region, wherein the first and second regions are combined to form the sidewall. (Specification, page 6, para. 21, lines 2-6). The container 10 has a sidewall 17 comprising a root-tip-trapping region 13 and a porous fabric region 20. (Specification, page 13, para. 38, lines 2-3; Figure 1). The porous fabric 18 in the air-root-pruning region 20 of the container 10 is suitable for air-root-pruning. (Specification, page 14, para. 42, lines 1-2; Figure 5). The root-tip-trapping region 13 of the sidewall 17 of the container 10 allows the tips 34 of the roots 30 to enter into the layer of porous fabric 18 and impinge upon the root-impenetrable material 16 to become trapped. (Specification, page 14, para. 43, lines 1-4; Figure 6).

Independent claim 46 is directed to a sidewall for a plant container comprising a root-tip-trapping region provided by a porous fabric layer and a root-impenetrable layer bonded together. Most preferably, the root-impenetrable layer is also water-impermeable. Multiple porous fabric and root-impenetrable layers are also envisioned. The bonding may be accomplished in a variety of ways, such as lamination or by means of an adhesive. (Specification, page 9, para. 27, lines 1-5; Figure 2).

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(6) GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

a. Whether claims 1-4, 7, 11, 12, 20, 26, 27, 37-40, and 46 are anticipated under 35 U.S.C. 102(b) by Reynolds et al., U.S. 3,080,680.

b. Whether claims 5, 6, 8, 9, 14-16, 24, 32, 33, and 36 are unpatentable under 35 U.S.C. 103(a) over Reynolds et al., U.S. 3,080,680.

c. Whether claims 10, 13, 17-19, and 47-50 are unpatentable under 35 U.S.C. 103(a) over Reynolds et al., U.S. 3,080,680, in view of Reiger, U.S. 6,202,348.

d. Whether claim 21 is unpatentable under 35 U.S.C. 103(a) over Reynolds et al., U.S. 3,080,680, in view of Thomas, U.S. 5,311,700.

e. Whether claims 22 and 23 are unpatentable under 35 U.S.C. 103(a) over Reynolds et al., U.S. 3,080,680, in view of Berlitz et al., GB 2073567.

f. Whether claims 25, 29, and 31 are unpatentable under 35 U.S.C. 103(a) over Reynolds et al., U.S. 3,080,680, in view of Van der Goorbergh, EP 300578A3.

g. Whether claims 28, 34, and 35 are unpatentable under 35 U.S.C. 103(a) over Reynolds et al., U.S. 3,080,680, in view of Flasch, Jr., U.S. 5,852,896.

h. Whether claim 30 is unpatentable under 35 U.S.C. 103(a) over Reynolds et al., U.S. 3,080,680, as modified by Berlitz et al., GB 2073567, and further in view of Flasch, Jr., U.S. 5,852,896.

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(7) ARGUMENT

a. Whether claims 1-4, 7, 11, 12, 20, 26, 27, 37-40, 46 are anticipated under 35 U.S.C. 102(b) by Reynolds et al., U.S. 3,080,680.

(1) Applicable law.

"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). Furthermore, "[a]nticipation requires the presence in a single prior art reference disclosure of each and every element of the claimed invention, *arranged as in the claim.*" *Lindemann Mashinenfabrik GmbH v. American Hoist & Derrick Co.*, 730 F.2d 1452, 221 USPQ 481, 485 (Fed. Cir. 1984). Under 35 U.S.C. Section 102, anticipation requires that "the prior art reference must be enabling, thus placing the allegedly disclosed matter in the possession of the public." *Akzo N.V. v. U.S. Int'l Trade Comm'n*, 808 F.2d 1471, 1 USPQ2d 1241, 1245 (Fed. Cir. 1986). "There must be no difference between the claimed invention and the reference disclosure, as viewed by a person of ordinary skill in the field of the invention." *Scripps Clinic & Research Found. v. Genentech Inc.*, 927 F.2d 1565, 18 USPQ2d 1001, 1010 (Fed. Cir. 1991). Similarly, the Federal Circuit has stated that "[a]n anticipating reference must describe the patented subject matter with sufficient clarity and detail to establish that the subject matter existed and that its existence was recognized by persons of ordinary skill in the field of the invention." *ATD Corp v. Lydall, Inc.* 159 F.3d 534 (Fed. Cir. 1998).

The Court of Appeals for the Federal Circuit has recently reaffirmed that examiners must interpret claim terms in a manner that is consistent with the specification. The case of *In re American Academy of Science Tech. Center* is cited in the Manual of Patent Examining

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Procedure, Section 211.01 entitled "Plain Meaning." According to this Federal Circuit opinion, "[d]uring examination, 'claims . . . are to be given their broadest reasonable interpretation consistent with the specification, and . . . claim language should be read in light of the specification as it would be interpreted by one of ordinary skill in the art.'" *In re American Academy of Science Tech Center*, 367 F.3d 1359 (Fed. Cir. 2004). Accordingly, it is required that claim terms be read in light of the specification and interpreted consistent with the specification. The M.P.E.P. Section 2111.01, Subsection III, entitled "Applicant May Be Own Lexicographer," emphasizes that:

The specification should also be relied on for more than just explicit lexicography or clear disavowal of claim scope to determine the meaning of a claim term when an applicant acts as his or her own lexicographer; the meaning of a particular claim term may be defined by implication, that is, according to the usage of the term in context in the specification. See *Phillips v. AWH Corp.*, 363 F.3d 1207, 75 USPQ2d 1321 (Fed. Cir. 2005)(*en banc*); and *Vitronics Corp. v. Conceptor Inc.*, 90 f.3d 1576, 1583 USPQ2d 1573, 1577 (Fed. Cir. 1996).

(2) Review of the cited prior art.

Reynolds '680 discloses a organic fibre pot, particularly a pot comprising predominately peat moss, that is strengthened by applying a removable plastic coating, skin or enrobement to the outside of the pot. (Reynolds, col. 2, lines 40-46).

(3) Claims must be interpreted consistent with the specification.

Appellant asserts that it is necessary to review the Appellant's specification for express or implied definitions of the claim terms "root-tip-trapping" and "sidewall."

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Regarding the proper scope of the term “root-tip-trapping,” Appellant asserts that this term is defined by the following:

(1) “Whitcomb (4,497,132) teaches that when root tips are trapped . . . and cannot extend, root tips cease to grow and root branching results.” (Specification, para. 5).

(2) “As a result of root tips 34 becoming trapped, the root tips 34 swell somewhat, become more thick-bodied, give up control and allow side branches 31 to grow.” (Specification, para. 41).

(3) “Figure 6 is a partial cross-sectional view of the sidewall 17 in the root-tip-trapping region 13 of the container 10 (similar to Figure 3) illustrating how the tips 34 of the roots 30 enter into the layer of porous fabric 18 and impinge upon the root-impenetrable material 16 to become trapped. As in Figure 4, it is an important effect of the invention that the root tips 34 swell and allow enhanced root side branches 31 to grow within the growth medium 32.” (Specification, para. 43; and Figure 6).

Accordingly, “root-tip-trapping” means that the tip of a root becomes trapped and cannot grow or extend any further. Furthermore, this definition from the specification is entirely consistent with the ordinary and customary meaning given to the term by those of ordinary skill in the art. Evidence of this fact is found in the cited reference to Reiger, U.S. 6,202,348. Reiger explains that “the nursery industry utilizes three methods to stop root circling and to root prune.” Reiger, col. 2, lines 45-46. The third method uses a root pruning structure where “[r]oot tips of plants grown in such pots may be trapped . . . so that the roots lose their apical dominance and begin to branch in the pot.” Reiger, col. 2, lines 58-65.

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Furthermore, Whitcomb (U.S. Patent 4,442,628) describes a "root-pruning structure" including "root traps" whereby "the tip of the roots" becomes trapped. (U.S. 4,442,628, col. 4, lines 44-64). Root tips become trapped in the '628 stair stepped container structure such that physical restriction to further elongation of the root caused branching to occur much like air-root-pruning.

Appellant asserts that this evidence shows that one of ordinary skill in the nursery industry would understand the term "root-tip-trapping" to mean a root pruning structure in which root tips become trapped. Thus, a root tip is not "trapped" and a material is not "root-tip-trapping," as those terms are properly interpreted from the present specification, if the root tip continues to extend and grow in the manner that it does in Reynolds, where the roots grow in the interface between the skin and pot. Reynolds merely redirects root tips in a manner similar to what occurs with other conventional nursery plant containers having smooth side walls.

Regarding the proper scope of the term "sidewall", the present specification consistently distinguishes between a "sidewall" and a "bottom." For example, in reference to Figure 2, the specification says that "Seams 19 are shown coupling a floor or bottom 15 to the sidewalls 17 of the barrier to form the container 10." (Specification, para. 39; and Figure 2). Accordingly, the Appellant asserts that the specification expressly or impliedly defines a sidewall as being distinct from a bottom or bottom wall. One of ordinary skill in the nursery industry, after reading the specification and seeing that the specification distinguishes a "sidewall" from a "bottom", would understand that the "sidewall" does not include the "bottom."

Furthermore, this definition is consistent with the ordinary and customary meaning given this term in the art. Even the references cited by the examiner make a similar distinction

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between a "side wall" and a "bottom wall." For example, Reynolds (U.S. 3,080,680) discloses that his enrobement comprises "a portion 61 which is adherent to the bottom wall 17 of the port and portions 62 which are smoothly adherent to the side walls 16 of the pot. (See Figure 3). As another example, Reiger (U.S. 6,202,348) discloses a pot having "a side wall 142 which is preferably slightly tapered from top to bottom, and a bottom 144." (Reiger, See Figure 8 for element 142, and Figure 9 for element 144).

Accordingly, Appellant asserts that the term "sidewall" must be interpreted in a manner consistent with the present specification, as well as the cited prior art, as excluding a "bottom." The Examiner has made the unsupported assertion that "a bottom sidewall is also a term known in the art too." (Office Action, page 11, lines 6-7). Regardless of whether this assertion is true or not, the Examiner has produced no evidence supporting this position and this is not the terminology that has been used in Appellant's claims and defined in either the present specification or the two cited prior art references discussed.

Appellant asserts that when the claims are interpreted in light of the specification, Reynolds does not disclose a "sidewall for a plant container, comprising a substantially water-impermeable root-tip-trapping region and a porous air-root-pruning region adjacent the root-tip-trapping region." (Claim 1).

For example, claim 1 of the present application includes a "root-tip-trapping region." The present application describes two types of root-pruning elements, root-tip-trapping and air-root-pruning. (Specification, para. 7). Figures 4 and 6, and the discussions of those Figures (Specification, para. 41 and 43), are dedicated to describing the phenomena of root-tip-trapping.

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Reynolds (U.S. Patent 3,080,680) does not expressly or inherently disclose a root-tip-trapping region. In a discussion of the "enrobements" covering his pots, Reynolds states that the enrobements:

"deflect roots which penetrate the pot wall, and *cause them to continue to grow in the inter-face between the pot and the skin*. Thus, the roots are there and ready to grow out into the soil the moment the external film is removed and the plant transplanted." (Reynolds, col. 3, lines 20-25, *emphasis added*).

Reynolds goes on later to say:

"as plants grow in the pots, rootlets will force their way through the walls of the pot, just as they do in the use of conventional fibrous pots, and that the degree of adherence of the enrobement to the pot is such that *the rootlets can continue to grow in the interface between the skin and the pot*, but will not force their way through the skin." (Reynolds, col. 5, lines 66-73, *emphasis added*).

Clearly, Reynolds does not disclose any structure that possesses the claimed characteristic of a root-tip-trapping region.

While the Examiner has asserted that Reynolds teaches a root-tip-trapping region (Final Office Action, page 3, para. 9; regarding claim 39), Appellant has shown that Reynolds provides no such teaching. In fact, Reynolds expressly teaches, as shown above, that the structure disclosed would not trap root tips as claimed by Appellant. Therefore, Reynolds does not establish that the claimed subject matter existed prior to the present invention by the Appellant.

Similarly, Reynolds does not expressly or inherently disclose any structure that possesses the claimed characteristic of an air-root pruning region. Reynolds states that "the enrobement which is thus produced effectively strengthens the relatively fragile pot to protect it against damage in ordinary handling, and that the skin will effectively adhere to the pot throughout normal handling, plunging and the like." (Reynolds, col. 5, lines 61-65). Reynolds defines

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“plunging” as immersing the plant’s roots, together with the container, in soil or other media in which growth would occur if the plant were not restrained by the container. (Reynolds, col. 2, lines 20-23). Accordingly, the structure disclosed by Reynolds does not air-root prune because the plastic enrobement would not be air permeable, and also because the pot is intended to be plunged, i.e., planted into the soil, so that the pot is surrounded by soil that would not cause air-root pruning.

The Examiner asserts that the bottom of sheet 60 is perforated, thus allowing air to enter adjacent to the root-tip-trapping region. (Office Action, page 3, para. 6). However, the bottom of the sheet would generally be either plunged in soil or sat onto a support surface such that air-root-pruning would not occur. Appellant asserts that Reynolds does not expressly teach air-root-pruning and that a finding of inherent anticipation is not supported unless missing elements are necessarily present in the thing described by the reference. A person having ordinary skill would not read Reynolds as teaching air-root-pruning.

Furthermore, the claims subject to this rejection are all directed to a *sidewall* for a plant container. Discussing Figure 2, the specification states that “[s]eams 19 are shown coupling a floor or bottom 15 to the sidewalls 17 of the barrier to form the container 10.” (Specification, paragraph 39; Figure 2). Accordingly, a sidewall is an element of a container that is distinct from the bottom of the container. Reynolds makes a similar distinction between the bottom wall 17 of the pot and the side walls 16 of the pot. (Reynolds, col. 5, lines 25-28).

Still further, Reynolds does not expressly or inherently disclose any structure that possesses both a root-tip-trapping region and an air-root-pruning region in the same sidewall for a plant container as claimed. For example, an embodiment shown in Figure 1 of the present application illustrates a container 10 having a sidewall 17 comprising a root-tip-trapping region

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13 and a porous fabric region 20 that enables air-root-pruning. (Specification, para. 38, lines 2-3; Figure 1). In Figure 1, the root-tip-trapping region 13 includes an inner layer of porous fabric 18 laminated with an outer layer of a nonporous, root-impenetrable material 16. (Specification, para. 38, lines 3-5; para 39, lines 2-4; Figure 1). Accordingly, a region of the sidewall may have one or more layers. As shown in Figure 2, the root-tip-trapping region 13 may be a laminate of two layers, wherein the layer of porous fabric 18 extends beyond the root-impenetrable material 16 to form the sole layer of the air-root-pruning region 20.

For all of the reasons stated above, reconsideration and withdrawal of the rejection is requested.

b. Whether claims 5, 6, 8, 9, 14-16, 24, 32, 33, and 36 are unpatentable under 35 U.S.C. 103(a) over Reynolds et al., U.S. 3,080,680.

(1) Applicable law.

A claimed invention is unpatentable if the differences between it and the prior art “are such that the subject matter *as a whole* would have been obvious at the time the invention was made to a person having ordinary skill in the art.” 35 U.S.C. 103(a) [emphasis added]. The ultimate determination of whether an invention is or is not obvious is a legal conclusion based on underlying factual inquiries including: (1) the scope and content of the prior art; (2) the level of ordinary skill in the prior art; (3) the differences between the claimed invention and the prior art; and (4) objective evidence of nonobviousness. *Graham v. John Deere Co.*, 383 U.S. 1, 17-18, 148 USPQ 459, 467 (1966).

To establish a *prima facie* case of obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 291 (CCPA

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1974). All words in a claim must be considered in judging the patentability of that claim against the prior art. *In re Wilson*, 424 F.2d 1382, 1385 (CCPA 1970).

The Federal Circuit has made clear that all claim limitations must be considered and that it is impermissible to merely consider the “idea” of an invention. In *Jones v. Hardy*, 727 F.2d 1524 (Fed. Cir. 1984), the Federal Circuit stated:

Under the patent statute, Title 35 U.S.C., “ideas” are not patentable; claimed structures and methods are. Reducing a claimed invention to an “idea,” and then determining patentability of that “idea” is error. Analysis properly begins with the claims, for they measure and define the invention.

Id. at 1527 [citations omitted].

Furthermore, regarding the requirement that all the claim limitations must be taught or suggested by the prior art to establish a *prima facie* case of obviousness, the *Jones* Court stated:

The “difference” may have seemed slight (as has often been the case with some of history’s greatest inventions, *e.g.* the telephone) but it may also have been the key to success and advancement in the art resulting from the invention. Further, it is irrelevant in determining obviousness that all or all other aspects of the claim may have been well known in the art.

Id. at 1528.

An additional requirement for providing a *prima facie* case of obviousness is that the Examiner must provide a basis for combining or modifying the cited references. The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. *In re Mills*, 916 F.2d 680 (Fed. Cir. 1990).

The case law makes clear that the best defense against the subtle but powerful attraction of a hindsight-based obviousness analysis is rigorous application of the requirement for a showing

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of the teaching, suggestion, or motivation to combine prior art references. *See, e.g., C.R. Bard, Inc. v. M3 Sys., Inc.*, 157 F.3d 1340, 1352, 48 USPQ2d 1225, 1232 (Fed. Cir. 1998) (describing “teaching or suggestion or motivation [to combine]” as an “essential evidentiary component of an obviousness holding”); *In re Rouffet*, 149 F.3d 1350, 1359, 47 USPQ2d 1225, 1232 (Fed. Cir. 1998) (“the Board must identify specifically....the reasons one of ordinary skill in the art would have been motivated to select the references and combine them”); and *In re Fritch*, 972 F.2d 1260, 1265, 23 USPQ2d 1780, 1783 (Fed. Cir. 1992) (examiner can satisfy burden of obviousness in light of combination “only by showing some objective teaching [leading to the combination]”).

Evidence of a suggestion, teaching or motivation to combine references may flow from the prior art references themselves, the knowledge of one of ordinary skill in the art, or from the nature of the problem to be solved. *Pro-Mold & Tool Co. v. Great Lakes Plastics, Inc.*, 75 F.3d 1568, 1573, 37 USPQ2d 1626, 1630 (Fed. Cir. 1996). The invention must be viewed not with the blueprint drawn by the inventor, but in the state of the art that existed at the time. *Interconnect Planning Corp. v. Feil*, 774 F.2d 1132, 138, 227 USPQ 543, 547 (Fed. Cir. 1985).

In the case *In re Kotzab*, 217 F.3d 1365 (Fed. Cir. 2000), the Court states:

Most, if not all inventions arise from a combination of old elements . . . Thus, every element of a claimed invention may often be found in the prior art. However, identification in the prior art of each individual part claimed is insufficient to defeat patentability of the whole claimed invention. Rather, to establish obviousness based on a combination of the elements disclosed in the prior art, there must be some motivation, suggestion or teaching of the desirability of making the specific combination that was made by the applicant.

Id. at 1395.

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The *Kotzab* Court further distinctly points out the requirement that particular findings are required as to the justification for modifying the teachings of a reference. The Court stated:

Even when obviousness is based on a single prior art reference, there must be a showing of a suggestion or motivation to modify the teachings of that reference. The motivation, suggestion or teaching may come explicitly from a statement in the prior art, the knowledge of one of ordinary skill in the art, or, in some cases the nature of the problem to be solved. In addition, the teaching, motivation or suggestion may be implicit from the prior art as a whole, rather than expressly stated in the references . . . The test for an implicit showing is what the combined teachings, knowledge of one of ordinary skill in the art, and the nature of the problem to be solved as a whole would have suggested to those of ordinary skill in the art . . . Whether the Board relies on an express or an implicit showing, it must provide particular findings related thereto. Broad conclusory statements standing alone are not evidence.

Id. at 1370.

Further considering the impermissible use of hindsight obviousness analysis in the case *In re McLaughlin*, 443 F.2d 1392 (CCPA 1971), the Court stated:

It should be too well settled now to require citation or discussion that the test for combining references is not what the individual references themselves suggest but rather what the combination of disclosures taken as a whole would suggest to one of ordinary skill in the art. Any judgment of obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning, but so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made *and does not include knowledge gleaned only from applicant's disclosure*, such a reconstruction is proper.

Id. at 1395, emphasis added.

Appellant also relies upon the law of claim constructions set out in Section 7(a)(1), above, and is incorporated here by reference.

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(2) Review of the cited prior art.

Reynolds, U.S. Patent No. 3,080,690, was discussed in Section 7(a)(2), above, and such description is incorporated here by reference.

(3) Arguments.

Appellant respectfully reasserts, and incorporates here by reference, the remarks made in Section 7(a)(3) regarding the failure of Reynolds to disclose all of the limitations of claim 1 when the claim terms are interpreted consistent with the specification. It is asserted that, when the claims are interpreted in light of the specification, Reynolds similarly does not suggest a "sidewall for a plant container, comprising a substantially water-impermeable root-tip-trapping region and a porous air-root-pruning region adjacent the root-tip-trapping region." (Claim 1). Claims 5, 6, 8, 9, 14-16, 24, 32, 33, and 36 ultimately depend from claim 1, and Reynolds fails to teach, show or suggest each of the limitations of claim 1.

Appellant has shown above that Reynolds does not teach, show or suggest root-tip-trapping, air root pruning, or a combination of the two. In the absence of a suggestion to so modify the disclosure of Reynolds, Reynolds does not make claim 1 obvious, nor any of the claims ultimately dependent from claim 1.

c. Whether claims 10, 13, 17-19, 47-50 are unpatentable under 35 U.S.C. 103(a) over Reynolds et al., U.S. 3,080,680, in view of Reiger, U.S. 6,202,348.

(1) Applicable law.

The applicable law regarding 35 U.S.C. 103(a) is set out above in Section 7(b)(1), above, and is incorporate here by reference.

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(2) Review of the cited prior art.

Reynolds, U.S. Patent No. 3,080,690, was discussed in Section 7(a)(2), above, and such description is incorporated here by reference.

Reiger, U.S. 6,202,348, discloses a plant-growing method and apparatus including an impermeable pot having a porous fabric liner closely received therein.

(3) Arguments.

Appellant respectfully asserts that when the claims are interpreted in light of the specification, Reynolds and/or Reiger do not teach, show or suggest a "sidewall for a plant container, comprising a substantially water-impermeable root-tip-trapping region and a porous air-root-pruning region adjacent the root-tip-trapping region" (Independent Claim 1), or a "sidewall for a plant container, comprising a water permeable, porous fabric layer and a water impermeable, root impenetrable layer bonded to a portion of the outer face of the fabric layer." (Independent Claim 46). For example, the rejection does not provide a single citation to the references regarding a teaching or suggestion of an air-root-pruning region as set out in claim 1, nor a teaching or suggestion of bonding a porous fabric layer to a root impenetrable layer.

It is also asserted that in order to combine Reynolds and Reiger, there must some reason, suggestion, or motivation from the prior art as a whole for the person of ordinary skill to have combined the references. The only motivation being asserted is that "Reynolds et al. discuss in col. 6, lines 65-75, regarding roots trapping." (Final Office Action, page 11). However, Appellant has shown that Reynolds does not in fact disclose "root-tip-trapping" as that term is properly interpreted in light of the specification. Accordingly, the combination of references cannot be supported. These references address quite different problems and Appellant finds no such motivation or suggestion to combine these references.

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In addition, there is nothing in Reynolds, Reiger or a combination thereof that teaches, shows or suggests a container having both a root-tip-trapping region and an air-root-pruning region, as claimed.

Claims 10 and 13.

Regarding claims 10 and 13, Appellant would point out that Reiger '348 does not disclose protuberances. Element 160 is disclosed by Reiger as the inner surface of a fabric liner. Reiger never uses the term protuberance and the structures disclosed by Reiger are not protuberances at all. On the other hand, protuberances are described in U.S. Patent 4,939,865 and copending U.S. patent application 10/446,987. Accordingly, a person of ordinary skill in the art would understand the term protuberance to mean something that thrusts outwardly from a surrounding or adjacent surface. (See 10/446,987, first paragraph of the Summary).

d. Whether claim 21 is unpatentable under 35 U.S.C. 103(a) over Reynolds et al., U.S. 3,080,680, in view of Thomas, U.S. 5,311,700.

(1) Applicable law.

The applicable law regarding 35 U.S.C. 103(a) is set out above in Section 7(b)(1), above, and is incorporate here by reference.

(2) Review of the cited prior art.

Reynolds, U.S. Patent No. 3,080,690, was discussed in Section 7(a)(2), above, and such description is incorporated here by reference.

Thomas, U.S. 5,311,700, discloses a plant container formed by a polyurethane liner support by a wire mesh outer basket. (Thomas, Abstract).

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(3) Arguments.

Appellant reasserts its comments from Section 7(b)(3) regarding Reynolds and asserts that Thomas fails to teach or suggest the limitations missing from Reynolds.

e. Whether claims 22, 23 are unpatentable under 35 U.S.C. 103(a) over Reynolds et al., U.S. 3,080,680, in view of Berlitz et al., GB 2073567.

(1) Applicable law.

The applicable law regarding 35 U.S.C. 103(a) is set out above in Section 7(b)(1), above, and is incorporated here by reference.

(2) Review of the cited prior art.

Reynolds, U.S. Patent No. 3,080,690, was discussed in Section 7(a)(2), above, and such description is incorporated here by reference.

Thomas, U.S. 5,311,700, discloses a plant container formed by a polyurethane liner support by a wire mesh outer basket. (Thomas, Abstract).

(3) Arguments.

Appellant reasserts its comments from Section 7(b)(3) regarding Reynolds failure to teach a root-tip-trapping region and asserts that Thomas fails to teach or suggest the limitations missing from Reynolds.

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f. Whether claims 25, 29, 31 are unpatentable under 35 U.S.C. 103(a) over Reynolds et al., U.S. 3,080,680, in view of Van der Goorbergh, EP 300578A3.

(1) Applicable law.

The applicable law regarding 35 U.S.C. 103(a) is set out above in Section 7(b)(1), above, and is incorporate here by reference.

(2) Review of the cited prior art.

Reynolds, U.S. Patent No. 3,080,690, was discussed in Section 7(a)(2), above, and such description is incorporated here by reference.

Van der Goorbergh, EP 300578A3, discloses a dimensionally stable see trough (Van der Goorbergh, Abstract).

(3) Arguments.

Appellant reasserts its comments from Section 7(b)(3) regarding Reynolds failure to teach a root-tip-trapping region and asserts that Van der Goorbergh fails to teach or suggest the limitations missing from Reynolds.

g. Whether claims 28, 34, 35 are unpatentable under 35 U.S.C. 103(a) over Reynolds et al., U.S. 3,080,680, in view of Flasch, Jr., U.S. 5,852,896.

(1) Applicable law.

The applicable law regarding 35 U.S.C. 103(a) is set out above in Section 7(b)(1), above, and is incorporate here by reference.

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(2) Review of the cited prior art.

Reynolds, U.S. Patent No. 3,080,690, was discussed in Section 7(a)(2), above, and such description is incorporated here by reference.

Flasch, Jr., U.S. 5,852,896, discloses a plant container having an annular wall for receiving water. (Flasch, Jr., Abstract).

(3) Arguments.

Appellant reasserts its comments from Section 7(b)(3) regarding Reynolds failure to teach a root-tip-trapping region and asserts that Flasch, Jr. fails to teach or suggest the limitations missing from Reynolds.

h. Whether claim 30 is unpatentable under 35 U.S.C. 103(a) over Reynolds et al., U.S. 3,080,680, as modified by Berlitz et al., GB 2073567, and further in view of Flasch, Jr., U.S. 5,852,896.

(1) Applicable law.

The applicable law regarding 35 U.S.C. 103(a) is set out above in Section 7(b)(1), above, and is incorporated here by reference.

(2) Review of the cited prior art.

Reynolds, U.S. Patent No. 3,080,690, was discussed in Section 7(a)(2), above, and such description is incorporated here by reference. Flasch, Jr., U.S. Patent No. 5,852,896, was discussed in Section 7(g)(2), above, and such description is incorporated here by reference.

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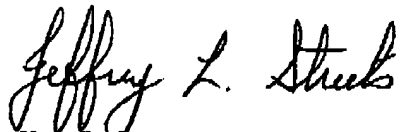
Berlit, et al., GB 2073567, discloses a plant container formed by a laminate of an opaque layer 11 and an outer decorative layer 20. (Berlit, et al., Abstract).

(3) Arguments.

Appellant reasserts its comments from Section 7(b)(3) regarding Reynolds failure to teach a root-tip-trapping region and asserts that Berlit, et al. fails to teach or suggest the limitations missing from Reynolds.

Therefore, because the cited prior art reference fails to disclose each and every limitation of the claims, Appellant respectfully asserts that the examiner has not made out a *prima facie* case of anticipation nor a *prima facie* case of obviousness. Therefore, Appellant respectfully requests the Board to reverse the present rejections and find that claims 1-40 and 46-50 presented on appeal are patentable.

Respectfully submitted,



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**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

IN RE APPLICATION OF:	§	
Carl E. Whitcomb	§	
SERIAL NO: 10/770,352	§	EXAMINER: Nguyen, Son T.
	§	
CONFIRMATION NO.: 7661	§	
	§	GROUP ART UNIT: 3643
FILED: February 2, 2004	§	
	§	Via Facsimile: 571-273-8300
FOR: Plant Container and Sidewall Providing	§	
Improved Management of Irrigation	§	
and Aeration	§	

APPENDIX IN SUPPORT OF APPELLANT'S APPEAL BRIEF

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(8) CLAIMS APPENDIX

What is claimed is:

1. (original) A sidewall for a plant container, comprising:
a substantially water-impermeable root-tip-trapping region; and
a porous air-root-pruning region adjacent the root-tip-trapping region.
2. (original) The sidewall of claim 1, wherein the root-tip-trapping region is colinear with the air-root-pruning region.
3. (original) The sidewall of claim 1, wherein the root-tip-trapping region comprises a porous fabric layer bonded to a layer of a root-impenetrable material.
4. (original) The sidewall of claim 1, wherein the root-tip-trapping region is a contiguous upper portion of the sidewall and the air-root-pruning region is a contiguous lower portion of the sidewall.
5. (original) The sidewall of claim 1, wherein the root-tip-trapping region comprises between $1/2$ and $9/10$ of the sidewall.
6. (original) The sidewall of claim 1, wherein the root-tip-trapping region comprises between $2/3$ and $3/4$ of the sidewall.

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7. (original) The sidewall of claim 1, wherein the sidewall is flexible, rigid, or a combination thereof.
8. (original) The sidewall of claim 1, wherein the root-tip-trapping and air-root-pruning regions form a bendable sheet.
9. (original) The sidewall of claim 1, wherein the air-root-pruning region includes protuberances having outwardly extending distal ends that are open.
10. (original) The sidewall of claim 1, wherein the root-tip-trapping region includes protuberances having outwardly extending distal ends that are closed to trap roots.
11. (original) The sidewall of claim 1, wherein the edge of the sidewall is secured by a method selected from sewing, gluing, plastic welding, hooking, rivoting, screwing, bolting, bonding, and combinations thereof.
12. (original) The sidewall of claim 3, wherein the root-impenetrable material is water-impermeable.
13. (original) The sidewall of claim 1, wherein the root-tip-trapping region comprises greater than 10 root-tip-trapping elements per square inch.

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14. (original) The sidewall of claim 3, wherein the porous fabric has a weight between 2 and 10 ounces per square yard.
15. (original) The sidewall of claim 3, wherein the porous fabric has a weight between 4 and 6 ounces per square yard.
16. (original) The sidewall of claim 3, wherein the porous fabric has openings between 1/16 and ¼ inch.
17. (original) The sidewall of claim 3, wherein the porous fabric is a spun bonded, needle punched fabric.
18. (original) The sidewall of claim 3, wherein the porous fabric is selected from polyester, polypropylene or other olefin fiber.
19. (original) The sidewall of claim 3, wherein the porous fabric is a woven or knitted fabric.
20. (original) The sidewall of claim 3, wherein the porous fabric is degradable.
21. (original) The sidewall of claim 3, wherein the porous fabric is cotton.
22. (original) The sidewall of claim 3, wherein the porous fabric is opaque.

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23. (original) The sidewall of claim 22, wherein the porous fabric is black or gray.
24. (original) The sidewall of claim 3, wherein the porous fabric is bonded onto the root-impenetrable material by a method selected from gluing, laminating and combinations thereof.
25. (original) The sidewall of claim 3, wherein the root-impenetrable material is reflective.
26. (original) The sidewall of claim 3, wherein the root-impenetrable material is a polymer sheet.
27. (original) The sidewall of claim 3, wherein the root-impenetrable material is selected from polyethylene and polypropylene.
28. (original) The sidewall of claim 3, wherein the root-impenetrable material is metal.
29. (original) The sidewall of claim 3, wherein the root-impenetrable material is a metal foil.

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30. (original) The sidewall of claim 22, wherein the root-impenetrable layer is pervious to UV radiation.

31. (original) The sidewall of claim 3, wherein the root-impenetrable material is white.

32. (original) The sidewall of claim 3, wherein the root-impenetrable layer has a thickness between 2 and 10 mils.

33. (original) The sidewall of claim 3, wherein the root-impenetrable layer has a thickness between 3 and 5 mils.

34. (original) The sidewall of claim 3, wherein the root-impenetrable material is biodegradable.

35. (original) The sidewall of claim 34, wherein the biodegradable material is selected from wood, fiber, starch, polyhydroxyalkanoates, polycaprolactone, polylactide aliphatic copolymer, polylactide, aliphatic polyester, an aliphatic-aromatic copolymer, and combinations thereof.

36. (original) The sidewall of claim 1, wherein the regions are configured in a pattern selected from rows, columns, dots, checkerboard, and combinations thereof.

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37. (original) The sidewall of claim 1, wherein the sidewall is an integral part of a container.
38. (original) The sidewall of claim 1, wherein the sidewall is a discrete panel that can form a container.
39. (original) The sidewall of claim 1, wherein there are two or more root-tip-trapping regions.
40. (original) The sidewall of claim 1, wherein there are two or more air-root-pruning regions.
41. (withdrawn) A container formed by bending and securing opposed edges of one or more sidewall panels together, wherein the sidewall comprises a substantially water-impermeable root-tip-trapping region and a porous air-root-pruning region adjacent the root-tip-trapping region.
42. (withdrawn) The container of claim 41, wherein the root-tip-trapping region is a contiguous upper portion of the sidewall and the air-root-pruning region is a contiguous lower portion of the sidewall, and wherein the root-tip-trapping region comprises between 1/2 and 9/10 of the sidewall.

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43. (withdrawn) The container of claim 41, wherein the root-tip-trapping region comprises a root-impenetrable sheet bonded to a porous fabric having openings with a diameter between 1/16 and ¼ inch.

44. (withdrawn) The container of claim 43, wherein the root-impenetrable material is selected from polyethylene and polypropylene.

45. (withdrawn) The sidewall of claim 43, wherein the porous fabric is a spun bonded, needle punched fabric.

46. (original) A sidewall for a plant container, comprising:
a water permeable, porous fabric layer and a water impermeable, root-impenetrable layer bonded to a portion of the outer face of the fabric layer.

47. (original) The apparatus of claim 46, wherein the porous fabric is a spun bonded, needle punched fabric.

48. (original) The apparatus of claim 47, wherein the fabric has a density between 2 and 10 ounces per square yard.

49. (original) The apparatus of claim 46, wherein the root-impenetrable layer comprises polyethylene and the porous fabric comprises spun bonded fabric.

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50. (original) The apparatus of claim 49, wherein the polyethylene has a thickness between 2 and 10 mils.
51. (withdrawn) A method of growing a plant in a pot comprising the steps of:
air-pruning roots of the plant in a lower sidewall portion of the pot; and
trapping root tips of the plant in an upper sidewall portion of the pot.
52. (withdrawn) The method of claim 51, further comprising:
preventing water loss through the upper sidewall portion of the pot.
53. (withdrawn) The method of claim 52, further comprising:
draining excess water out of the pot through the lower sidewall portion of the pot.
54. (withdrawn) The method of claim 53, further comprising:
providing oxygen to the roots through the lower sidewall portion of the pot.
55. (withdrawn) A plant container, comprising:
a water permeable, porous fabric layer; and
a water impermeable polymer layer stretch-wrapped around a portion of the outer face of the fabric layer.
56. (withdrawn) The apparatus of claim 46, wherein the porous fabric is a spun bonded, needle punched fabric.

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57. (withdrawn) The apparatus of claim 47, wherein the fabric has a density between 2 and 10 ounces per square yard.

58. (withdrawn) The apparatus of claim 46, wherein the root-impenetrable layer comprises polyethylene and the porous fabric comprises spun bonded fabric.

59. (withdrawn) The apparatus of claim 49, wherein the polyethylene has a thickness between 2 and 10 mils.

60. (withdrawn) A method of preparing a growth environment for a plant, comprising:

disposing growth medium in a container having a water permeable, porous fabric sidewall; and

stretch-wrapping the upper $\frac{1}{2}$ to $\frac{9}{10}$ of the sidewall with a water conserving polymer film.

61. (withdrawn) The method of claim 50, wherein the polymer film is selected from polyethylene, polypropylene, polybutylene, and polyvinylchloride.

62. (withdrawn) The method of claim 51, wherein the porous fabric is spun bonded, needle punched fabric.

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(9) EVIDENCE APPENDIX

NONE

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(10) RELATED PROCEEDINGS APPENDIX

A Decision on Appeal was mailed February 9, 2006 for Appeal No. 2005-2481 regarding U.S. Application No. 10/075,096 filed on October 29, 2001. The present application claims priority from the application whose claims were the subject of the appeal. A copy of the Decision is attached.

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte CARL E. WHITCOMB

Appeal No. 2005-2481
Application No. 10/075,096

ON BRIEF

Before GARRIS, WALTZ, and TIMM, Administrative Patent Judges.

GARRIS, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on an appeal which involves claims 1-65.

The subject matter on appeal relates to a root growth barrier. With reference to the appellant's drawing, the root growth barrier 12 comprises a layer of a root-tip-trapping material 18 bonded to a layer of a root-impenetrable material 16. The root-tip-trapping material may be a porous fabric made of polyester, polypropylene or cotton.

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This appealed subject matter is adequately represented by independent claims 1 and 49 which read as follows:

1. A root growth barrier, comprising a layer of a root-tip-trapping material bonded to a layer of a root-impenetrable material.

49. A root growth barrier, comprising:
a polymer sheet having a surface bonded to a porous fabric.

The references set forth below are relied upon by the examiner in the § 102 and § 103 rejections before us.

Thomas	5,311,700	May 17, 1994
Flasch, Jr. (Flasch)	5,852,896	Dec. 29, 1998
Kalpin	3,094,810	Jun. 25, 1963
Reiger	6,202,348	Mar. 20, 2001
	(Filed Jun. 22, 1998)	
Billings	6,223,466	May 01, 2001
	(Filed Oct. 08, 1999)	
Berlit et al. (Berlit).	GB 2,073,576	Oct. 21, 1981
Van der Goorbergh	EP 300578	Jan. 25, 1989

Claims 1, 2, 4, 13-16, 18, 19, 29, 30, 41, 46, 48, 49, 53 and 63 are rejected under 35 U.S.C. § 102(b) as being anticipated by Berlit.

Under 35 U.S.C. § 103(a), the remaining claims on appeal are rejected as being unpatentable over Berlit alone or in various combinations with the other applied references listed above.

We refer to the brief and reply brief and to the answer (as well as the final action mailed January 14, 2004 which is alluded to on page 3 of the answer) for a complete exposition of the opposing viewpoints expressed by the appellant and by the examiner concerning the above noted rejections.

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OPINION

For the reasons expressed below, we cannot sustain any of the rejections advanced by the examiner on this appeal.

The examiner's § 102 rejection cannot be sustained because it is based upon erroneous findings of fact. Specifically, it is the examiner's finding that Berlitz discloses "a root growth barrier comprising a layer of a root-tip-trapping material 11, 14" (Final Office action, page 2) and that Berlitz further discloses "the root-tip-trapping material being polypropylene which is a porous fabric" (*id.*). However, the Berlitz reference contains no express teaching that layer 11 or layer 14 is formed of a "root-tip-trapping material" (e.g., claim 1) or a "porous fabric" (e.g., claim 49).

It is true that Berlitz's layers 11 and 12 can be formed of certain polymers including polypropylene (e.g., see the paragraph bridging pages 1 and 2 of the Berlitz reference). Apparently, the examiner believes the polypropylene layer taught by Berlitz is tantamount to a root-tip-trapping material and a porous fabric because the here claimed root-tip-trapping material may be in the form of a porous fabric made of certain materials including

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polypropylene (e.g., see the paragraph bridging pages 3 and 4 of the answer). The examiner's belief is meritless.

There is absolutely no basis for considering the polypropylene layer disclosed by Berlitz as a porous fabric. Based on the reference disclosure, this layer need not be either a porous material or a fabric material. It could, for example, be in the form of a nonporous polypropylene film. Analogously, no basis exists for considering Berlitz's polypropylene layer as possessing the root-tip-trapping capability claimed by the appellant.

For the above stated reasons, we cannot sustain the examiner's § 102 rejections of claims 1, 2, 4, 13-16, 18, 19, 29, 30, 41, 46, 48, 49, 53 and 63 as being anticipated by Berlitz.

The examiner has not attempted to cure the above discussed deficiency of Berlitz in any of the § 103 rejections before us. Under these circumstances, we also cannot sustain any of the examiner's § 103 rejections.

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The decision of the examiner is reversed.

REVERSED

BRADLEY R. GARRIS
Administrative Patent Judge

THOMAS A. WALTZ
Administrative Patent Judge


CATHERINE TIMM
Administrative Patent Judge

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